



Taxing Development: The Law and Economics of Traffic Impact Fees

**Benjamin Powell
Edward P. Stringham
Jack Estill**

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Benjamin Powell is an Assistant Professor of Economics at San Jose State University and the Director of the Center on Entrepreneurial Innovation at the Independent Institute. Edward Stringham is an assistant professor of economics at San Jose State University. Jack Estill is a graduate student at San Jose State University.

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I. Introduction

Should developers be charged fees for negatively impacting residents? New development often uses existing (or requires new) infrastructure including roads, sewers, refuse collection, parks, fire, police, and schools. When developers provide this infrastructure to users for “free,” who should pay? Over the past fifty years governments have increasingly charged new development impact fees for imposing costs on communities.¹ California is one of the leaders in the development of impact fees.² The modern Pigovian idea is that government can set a fee at the value of the impact to internalize externalities and encourage the economically efficient amount of development.³ While developers can often provide the necessary infrastructure within their own developments as part of the construction process, additional impacts from new development may spill over into existing communities that necessitate additional capital improvements.⁴ Local government can hypothetically charge the development a fee that is equal to this impact, thereby internalizing this externality. If the exact value of the external impact is known and implemented as a fee, this process can encourage the economically efficient amount of development. Despite the increasing popularity of

¹ William Abbott, Marian Moe, and Marilee Hanson, PUBLIC NEEDS AND PRIVATE DOLLARS, at 51. (1993).

² Dennis H. Ross and Scott Ian Thorpe, *Impact Fees: Practical Guide for Calculation and Implementation*, JOURNAL OF URBAN PLANNING AND DEVELOPMENT, at 1 (September 1992).

³ Pigovian taxes are used to correct externalities and are set at a rate that equals the spillover cost. See Robert Frank in MICRO ECONOMICS AND BEHAVIOR at 640-644 for a discussion of Pigovian taxes. The theory says government can measure the marginal externalities and set fees at exactly that level.

⁴ Jerry Kolo and Todd J. Dicker, *Practical Issues in Adopting Local Impact Fees*, STATE AND LOCAL GOVERNMENT REVIEW, at 197, 25, No. 3 (Fall 1993).

development impact fees, several issues make the government's "economically efficient" solution easier said than done.⁵

This paper focuses on traffic impact fees and illustrates a series of difficulties with their use. Contemporary U.S. law suggests that fees be based on a rational nexus of costs and benefits and on rough proportionality of a fee with the external cost imposed by new development. But how are these external costs measured? Can government know the marginal impacts of all homes before they are built? Do all developments have the same marginal impact on infrastructure, and, if not, should they all be charged different fees? Unless government knows the exact marginal impact of each development, they will undercharge some and overcharge others, making "economically efficient" development impossible. In the absence of markets with actual prices for these common pool resources, government will face numerous calculation problems.

Even if governments could know exact marginal impacts, implementation problems arise due to public choice concerns. Existing residents, politicians, and bureaucrats have incentives to support higher fees for several reasons. Residents receive a free ride when fees are used to support existing infrastructure. High fees raise the price of development that can translate into higher prices for its substitute – existing development – so existing residents have little reason to oppose exorbitant fees on development.⁶ Politicians and bureaucrats have an incentive to support higher fees because these fees increase their budgets and existing residents are their constituents while potential

⁵ For the various difficulties, many of which we will discuss later at length, see Kolo and Dicker, *supra* note at 197-206.

⁶ Marla Dresch and Steven M. Sheffrin, *Who pays for development fees and exactions?*, POLICY INSTITUTE OF CALIFORNIA at v (1997).

residents are not. In light of these problems, traffic impact fees are unlikely to internalize externalities in any Pigovian sense.

We begin by providing a history of fees and exactions in the U.S. and California and review the important legal issues surrounding their application. Next we look at the economics of impact fees and provide evidence of the level of traffic impact fees in various cities in California. We suggest that the variation of fees between jurisdictions indicates that at least some cities are miscalculating or misusing traffic impact fees. We conclude by offering some alternatives to impact fees.

II. Legal History of Fees and Exactions

Land development necessitates supporting services and infrastructure.⁷ Thus, new development requires improvements such as roads, utilities, parks and schools, as well as police, fire, and solid waste disposal services.⁸ Historically, such improvements were financed with bonds and local property taxes supplemented by state and federal grants along with subdivision dedications and fees.⁹ These public expenditures were seen as a spur to private investment.¹⁰ However, a combination of more complex (and costly) improvements, environmental considerations, a dramatic decline in federal expenditures on local infrastructure in the 1980's¹¹, and the property tax revolt epitomized by Proposition 13 in California has led local government to search for other methods of

⁷David L. Callies, Benjamin A. Kudo, and William S. Richardson, *Exactions, Impact Fees and Other Land Development Conditions*, PROCEEDINGS OF THE 1998 NATIONAL PLANNING CONFERENCE at 1(1998).

⁸*Id.*, at 1.

⁹*Id.*

¹⁰Kolo and Dicker, *supra* note, at 197.

¹¹Callies, Kudo, and Richardson, *supra* note, at 1.

financing needed infrastructure.¹² Exactions and impact fees have grown increasingly popular with local government as a supplementary financing source. Alshuler and Gomez-Ibanez find that approximately 60% of local governments used impact fees along with in-kind levies by the mid 1980's.¹³

Exactions, the on-site construction of public facilities or dedication of land, had been used for decades.¹⁴ Impact fees, also called exactions, were instituted in the 1920's as a new local financing tool.¹⁵ Where no appropriate land was available for a traditional exaction, off-site land or a fee-in-lieu could be substituted for a dedication.¹⁶ Over time these fees came to include capital costs for on and off-site improvements brought about by new development.¹⁷ Rooted in the idea that new development should pay its own way,¹⁸ impact fees have been increasingly used to pay for improvements traditionally paid for by property taxes.¹⁹ "According to the State Controller's Office, fees and service charges account for almost 20% of annual local government revenues."²⁰ They are generally a one-time charge on new development by local government as a condition of approval for a building permit to pay the development's proportional share of capital improvements.²¹ Under California law a "fee" is defined as a monetary exaction "other than a tax or special assessment."²² While fees share two characteristics with taxes: they

¹² Ross and Thorpe, *supra* note, at 2.

¹³ Alan A. Altshuler and Jose A. Gomez-Ibanez, REGULATION FOR REVENUE: THE POLITICAL ECONOMY OF LAND USE EXACTIONS, (1993).

¹⁴ Callies, Kudo, and Richardson, *supra* note, at 1.

¹⁵ Kolo and Dicker, *supra* note, at 197.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ Ross and Thorpe, *supra* note, at 3.

¹⁹ Abbott, Moe, and Hanson, PUBLIC NEEDS AND PRIVATE DOLLARS, *supra* note, at 51.

²⁰ William Abbott, Peter M. Detwiler, M. Thomas Jacobsen, Margaret Sohagi, and Harriet Steiner, EXACTIONS AND IMPACT FEES IN CALIFORNIA, at 15 (2001).

²¹ Shishir Mathur, Paul Waddell, and Hilda Blanco, *The Effect of Impact Fees on the Price of New Single-family Housing*, URBAN STUDIES, 1303, (June 2004).

²² CALIFORNIA GOVERNMENT CODE 66000, (2005).

are levied on developers as a monetary charge and they are often assessed on a proportional basis, localities cannot tax without specific legislative authority from the state.²³ This distinction between taxes and fees is important in the evolution of impact fees. Impact fees, exactions, in-lieu fees, and compulsory dedications are often treated as synonymous since they all are established as conditions precedent to obtaining final development approvals.²⁴ However, dedications are sometimes treated differently than impact or in-lieu fees. The courts have reviewed these exactions through a series of cases in an attempt to more clearly define their appropriate use and proper legal role.

The legal basis for government intervention in the development process is its police power to protect the public health, safety, and welfare of its citizens.²⁵ Quoting United States Supreme Court Justice William O. Douglas, “The concept of public welfare is broad and inclusive... It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well balanced as well as carefully patrolled.”²⁶ In California this police power is enumerated in Article XI, Sect. 7 of the Constitution, cities have the power to “make and enforce within limits all local police, sanitary, and other ordinances and regulations not in conflict with general laws”²⁷ as confirmed in *California Building Industry Association v. Governing Board of the Newhall School District*.²⁸ Prior to *First English Evangelical Church v. County of Los Angeles*, 482 U.S. 304 (1987) California courts had held that

²³ See Nick Rosenberg, *Development Impact Fees: Is limited cost internalization actually smart growth?*, BOSTON COLLEGE ENVIRONMENTAL AFFAIRS LAW REVIEW, at 2-3, (2003).

²⁴ See Callies, Kudo, and Richardson for a similar treatment.

²⁵ Daniel J. Curtin, Jr. and Cecily T. Talbert, CALIFORNIA LAND USE AND PLANNING LAW, at 1 (25th ed. 2005).

²⁶ *Berman v. Parker*, 348 U.S. 26, 1954.

²⁷ Curtin and Talbert, *supra* note, at 1.

²⁸ *Id.*, at 314, see also *California Building Industry Association v. Governing Board of the Newhall School District*, 206 Cal. App. 3d 212, 1998.

unreasonable land-use regulations that denied all beneficial use of property did not require damage award, rather landowners were limited to seeking court invalidation.²⁹ *First English* overturned this view when the United States Supreme Court held that such a taking required compensation under the Just Compensation Clause of the Fifth Amendment as applied to the states by the Fourteenth Amendment.³⁰ The decision imposed a restraint on local governments' use of their police power. Later cases confirmed that a taking consisted of permanently depriving a landowner of all economically viable use of their land; partial and temporary limitations, generally, did not.³¹

As far back as 1949 in *Ayers v. City Council* California courts have sought a connection between a project's conditions and its impacts when the California Supreme Court upheld a street right-of-way dedication abutting a subdivisions a reasonable connection even though its benefits would extend beyond the subdivision's residents.³² In *Candid Enterprises, Inc. v. Grosmont Union High School District*, 39 Cal.3d 878,885 (1985) the California Supreme Court found that as long as local government is subordinate to state law and limits its powers to its jurisdiction, its police power "is as broad as the police power exercisable by the Legislature itself."³³ This power is inherent and need not be delegated from the state.³⁴ The local government must conform to the constitution's due process, and those actions must be, reasonable and non-discriminatory.³⁵ The courts established that the necessity and form of regulation

²⁹ See *Agins v. City of Tiburon*, 24 Cal. 3d 266, 1979.

³⁰ Curtin and Talbert, *supra* note, at 289.

³¹ *Id.* at 285. See Curtin and Talbert, Chapter 12 "Takings" for a full discussion.

³² *Id.* at 317, *Ayes v. City Council*, 34 Cal. 2nd 31, 1949.

³³ *Id.* at 1.

³⁴ *Id.* at 2, *Candid Enterprises, Inc. v. Grosmont Union High School District*, 39 Cal.3d 878,885, 1985.

³⁵ *Id.* at 20, *G & D Holland Construction C. v. City of Marysville*, 12 Cal. App. 3d 989, 1970.

encompassed in the police power “is primarily a legislative and not judicial function...” and that the courts may only review such regulations with reasonableness to legislative intent and not by what the court might believe the regulation *should* be.³⁶

With the courts’ confirmation of the validity of the police power of local governments to establish fees and exactions, a series of cases in the 1970’s and 1980’s began delineating the limitations to that power.³⁷ Two cases stand out. First, *Nollan v. California Coastal Commission*³⁸ established that a *rational* connection (nexus) must exist between an imposed condition and the development in which the landowner engages. In this case a landowner proposed to remodel and expand an existing beach house and requested a permit from the Coastal Commission for the reconstruction. As a condition of the permit the Commission required the landowner dedicate an easement for public use of one-third of the property along the ocean as beach access. The California Court of Appeals upheld the Commission’s police power under its duty to protect the coast.³⁹

The U. S. Supreme Court reversed the decision. The Commission argued that the easement increased public access to the shore and decreased the psychological barrier to the beach that would be created by continuous development between the street and the sea.⁴⁰ The Court found that the imposed easement provided no relief for this psychological barrier, nor did it remedy any added congestion potentially created by the building.⁴¹ “It is quite impossible to understand that people already on the public beaches

³⁶ *Id.* at 4, italics preserved from original. Consolidated Rock Products Co. v. City of Los Angeles, 57 Cal. 2d 515, 522 1962.

³⁷ Callies, Kudo, and Richardson, *supra* note, at 2.

³⁸ *Nollan v. California Coastal Commission*, 483 U.S. 825, 1987.

³⁹ Callies, Kudo, and Richardson, *supra* note, at 3.

⁴⁰ Kolo and Dicker, *supra* note, at 198.

⁴¹ Abbott, Moe, and Hanson. PUBLIC NEEDS AND PRIVATE DOLLARS, *supra* note, at 63

be able to walk across the Nollans' property reduces any obstacles to viewing the beach created by the new house. It is impossible to understand how it lowers any 'psychological barrier' to using public beaches, or how it helps remedy any additional congestion on them caused by construction of the Nollans' new house. We therefore find that the Commission's imposition of the permit condition cannot be treated as an exercise of its land use power for any of these purposes."⁴² The Court continued that if the Commission had have imposed a condition with an essential nexus to the deleterious effects stated, that condition would have been upheld. Since this was not the case, the Commission's condition amounted to a taking, "... the lack of nexus between the condition and the original purpose of the building restriction converts that purpose into something other than it was. The purpose then becomes, quite simply, the obtaining of an easement to serve some valid government purpose, but without payment of compensation. Whatever may be the outer limits of 'legitimate state interests' in the takings and land use context, this is not one of them."⁴³ The Court also implied that the actual conveyance of property might require a closer nexus than the payment of fees, a position later followed by the California Appeals Court in *Blue Jeans Equity W. v. City and County of San Francisco*.⁴⁴ However, *Nollan* was sufficient to establish the "rational nexus" condition for exactions.⁴⁵

In the second case, *Dolan v. City of Tigard*,⁴⁶ the Supreme Court established that development conditions imposed must promote a legal public interest, have a rational

⁴² *Nollan v. California Coastal Commission*, 483 U.S. 825, 1987 at 838-839.

⁴³ *Id.* at 836.

⁴⁴ *Blue Jeans Equity W. v. City and County of San Francisco*, 3 Cal. App. 4th 164, 1992. For a thorough discussion see Curtin and Talbert, *supra* note, at 318 - 319.

⁴⁵ Callies, Kudo, and Richardson, *supra* note, at 4.

⁴⁶ *Dolan v. City of Tigard*, 114 S. Ct. 2309 1994.

connection to the development and, *additionally*, must be reasonably related (“rough proportionality” in the Court’s words) to the impact of the proposed development.⁴⁷

Dolan sought a building permit to double the size of her construction supply business and pave a 39-space parking lot. As a condition of granting the permit, Tigard had imposed the dedication of a bike path and greenway/floodplain easements under Tigard’s comprehensive land use plan developed Tigard’s Community Development Code (CDC).⁴⁸ The City held that the bikeway could offset some of the traffic impact of the proposed enlarged business and that greenway dedication of all property within the 100-year flood plain was related to the added impervious pavement proposed. Dolan properly but unsuccessfully appealed through local and state administrative channels and the Oregon courts and sought review by the U.S. Supreme Court, which was granted. The Court applied a three-pronged analysis. First, they found that the conditions promoted a legitimate public interest in preventing flooding and reducing traffic. Second, they found that there was a rational nexus between preventing flooding and limiting building in the flood plain, as well as, traffic reduction and encouraging bicycle use. However, the Court found that there was insufficient connection between the required dedications and the projected impacts of the development.⁴⁹

The City used “tentative” findings to relate the storm water flow and traffic increase to the property and these findings were insufficient to justify the breadth of conditions imposed.⁵⁰ The Court impose a “rough proportionality” and stated the, “No precise mathematical calculation is required, but the city must make some sort of

⁴⁷ Callies, Kudo, and Richardson, *supra* note, at 5.

⁴⁸ *Id.* at 4.

⁴⁹ *Id.* at 5.

⁵⁰ *Id.*

individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development.”⁵¹ Additionally, the Court noted that the city had given no justification for requiring a public easement rather than a private easement for flood control. The ability to exclude, the Court found, is “one of the most essential sticks in the bundle of rights that are commonly characterized as property,”⁵² quoting *Kaiser Aetna v. United States*.⁵³

Many land development conditions were struck down for lack of nexus or proportionality.⁵⁴ However, because *Nollan* and *Dolan* both dealt primarily with land dedications, it remained unclear how the heightened standards applied to fees in lieu of dedications. The California Supreme Court established its position in *Ehrlich v. City of Culver City*.⁵⁵ In the 1970’s Ehrlich acquired an undeveloped 2.4 acre parcel and requested a general plan and zoning change for a specific plan to develop a private tennis club. In 1981 due to financial losses he applied to change the land use and construct an office building. Ehrlich did not proceed when the planning commission voted against approval of the application based on the City’s need for commercial recreation sites. In 1988 after continuing losses, Ehrlich applied for a general plan, specific plan, and zoning change to build a thirty-unit condominium project valued at \$10 million. The application was denied and Ehrlich demolished the facility and donated the athletic equipment to the City. Ehrlich filed suit against the City while entering into negotiations with them for the condominium construction. After a closed door meeting, the City approved the

⁵¹ *Dolan v. City of Tigard* at 2319 – 20 as noted in Callies, Moe, and Richardson, *supra* note, at 6.

⁵² Callies, Kudo, and Richardson, *supra* note, at 6, as quoted from *Kaiser Aetna v. United States*.

⁵³ See *Kaiser Aetna v. United States*, 444 U.S. 164, 176, 1979.

⁵⁴ See Callies, Kudo, and Richardson, *supra* note, at 6 through 10 for a well-developed analysis of cases from around the United States.

⁵⁵ *Ehrlich v. City of Culver City*, 12 Cal. 4th 854, 1996.

condominiums conditioned on the payment of fees in the amount of \$280,000 for a recreation mitigation fee (based on partial replacement of the lost recreation established by a City study), \$33,200 for public art, and \$30,000 for in-lieu parkland. Ehrlich protested under Government Code Section 66020-21 and challenged both the recreation and art fees but not the parkland fee.⁵⁶

The trial court found for Ehrlich, the appeals court reversed. The Supreme Court remanded back to the appeals court in light of *Dolan*, and in 1994 the appeals court in an unpublished decision again upheld the fees. At this point the California Supreme Court agreed to consider the application of *Nollan* and *Dolan* to development fees as opposed to dedications.⁵⁷ The Court found that ad hoc development conditions based on individual negotiations between a developer and a local government posed “an inherent and heightened risk” that the government would use its police powers to impose conditions unrelated to the impacts of development and avoid paying just compensation.⁵⁸ The Court established a distinction between legislatively created impact fees on a class of landowners from individual, ad hoc fees. “...land use ‘bargains’ between property owners and regulatory bodies...where the individual property owner-developer seeks to negotiate approval of a planned development...the combined *Nollan/Dolan* test quintessentially applies.”⁵⁹ Additionally, looking at *Blue Jeans*⁶⁰ where the court upheld a low-income housing fee on nonresidential development, the Court found that heightened scrutiny was unnecessary where dedicated assessments were established by legislative

⁵⁶ *Id.* at 323.

⁵⁷ *Id.*

⁵⁸ *Id.* at 323-324 as noted in Ehrlich v. City of Culver City at 869.

⁵⁹ Ehrlich v. City of Culver City at 868.

⁶⁰ *Blue Jeans Equities W. v. City and County of San Francisco*, 3 Cal. App. 4th 164, 1992. See also, *Commercial Builders of N. Cal. v. City of San Francisco*, 941 F. 2d 872, 9th Cir. 1991.

action on a broad class of properties.⁶¹ However, dedications *and ad hoc assessments*, must meet the heightened scrutiny test.⁶²

This decision was supported by later decisions including *Loyola Marymount University v. Los Angeles Unified School District* and *San Remo Hotel, L.P. v. City and County of San Francisco*⁶³ though Justice Thomas of the U.S. Supreme Court dissented in a Georgia case stating that the distinction between the two is a “distinction without a difference.”⁶⁴ Since the *Ehrlich* case was ad hoc, the Court found a rational nexus of the planned condominium’s removal of potential recreation space (due to its zoning change), but struck down the recreational mitigation fees as not proportional to the impact since the City provided no individualized findings between the exactions and loss of zoning. The Court remanded the calculation to the City Council for reconsideration based on the court finding.⁶⁵ Finally, the Court required that a party that challenges a development fee must follow established statutory procedure (see below for a discussion of the Fee Mitigation Act), must pay the fee under protest, and file suit within 180 days.⁶⁶ It is worth noting that in *San Remo* where the Court upheld replacement housing in-lieu fees for a condominium conversion in a close four to three vote, California Supreme Court Associate Justice Brown entered a sharp dissent supporting private property and finding it an endangered species in California and entirely extinct in San Francisco. The City had

⁶¹ Curtin and Talbert, *supra* note, at 318.

⁶² Callies, Kudo, and Richardson, *supra* note, at 8.

⁶³ *Loyola Marymount University v. Los Angeles Unified School Dist.*, 45 Cal. App. 4th 1256, 1996 and *San Remo Hotel, L.P. v. City and County of San Francisco*, 27 Cal. 4th 643, 2002 as noted in Curtin and Talbert, *supra* note, at 324.

⁶⁴ See Callies, Kudo, and Richardson, *supra* note, at 8 regarding *Parking Ass’n. of Georgia v. City of Alabama*, 115 S.Ct. 2268, 1995.

⁶⁵ Curtin and Talbert, *supra* note, at 325. The Court also upheld the public art fee as a land use regulation based on the city’s police power to control aesthetics rather than as an exaction.

⁶⁶ *Id.*

established policies where property owners were subject to the whim of the majority, or worse, to the power brokers independent of the majority. “Where once government was a necessary evil because it protected private property, now private property is a necessary evil because it funds government programs.”⁶⁷ He found the ordinance imposing these fees unconstitutional under the Takings Clause of the California Constitution. The U. S. Supreme Court granted review of the case. The defendants filed their petition with the Court on the merits and process. The Court refused to review the merits and dismissed the case in June of 2005 on procedural grounds, finding the defendants’ state court endeavors “equivalent” to a federal trial, essentially supporting the City’s legislative authority to impose fees without heightened scrutiny.⁶⁸

The California Supreme Court clearly distinguished between ad hoc and legislatively imposed exactions. Exaction abuses and private property rights advocacy by builders groups eventually led to “nexus legislation” under Assembly Bill 1600 (Cortese)⁶⁹ established in 1987 and made effective on January 1, 1989 and added sections 66000-66011 to the California Government Code. In light of *Ehrlich* in 1996 it was modified to Sections 66000-66025 and relabeled the “Mitigation Fee Act.”⁷⁰ The definition of a fee was amended to include both legislatively imposed and ad hoc fees. A government entity imposing an impact fee on development projects must meet several standards. It must do the following:

⁶⁷ As quoted from *San Remo Hotel, L.P. v. City and County of San Francisco* in CURTIN AND TALBERT, *supra* note, at 328.

⁶⁸ Michael Berger, *San Remo Hotel: When Ship comes In – But Only Passes By*, LOS ANGELES DAILY JOURNAL, July 11, 2005, available at <http://www.manatt.com/KnowledgeCenter.aspx?id=3250&folder=84>.

⁶⁹ Laura Westrup, CALIFORNIA DEPARTMENT OF PARKS AND RECREATION, PLANNING DIVISION, QUIMBY ACT 101: AN ABBREVIATED OVERVIEW, 2 (2002).

⁷⁰ Curtin and Talbert, *supra* note, at 329.

- Establish the purpose of the fee
- Establish the use of the fee including public facilities to be financed
- Show a reasonable nexus between the purpose of the fee and the type of development
- Show a reasonable relationship between the public facility to be constructed and the type of development
- Show a reasonable relationship between the specific amount of the fee and the cost of public facilities attributable to the project
- Account for and spend collected fees only for the purposes intended with provision for the return of unexpended funds.⁷¹

The final condition above includes provisions requiring the government entity deposit, invest, account for, expend the fees and account for unexpended or uncommitted funds once each fiscal year. They must identify within 180 days of determining sufficient collected funds a schedule of improvements and adopt a capital improvement plan. Within 180 days of the closing of the fiscal year there must be a full accounting of the funds, as well as a review of the accounting by the government council at its next regularly scheduled meeting, not less than 15 days after it becomes available.⁷² It establishes specific procedures and a time line including a ninety-day protest period when a landowner or developer contests a fee. The government entity must provide written

⁷¹ Ross and Thorpe, *supra* note, at 3 and Curtin and Talbert, *supra* note at 329.

⁷² CALIFORNIA GOVERNMENT CODE SECTIONS 66000-66006.

notice of the ninety-day protest period at the time the project is approved or fees are imposed. The Code establishes a set procedure for any such protests.⁷³

Ultimately, the establishment of exactions rests on the police power of the state as established under *Berman* and confirmed in *California Building Ind. Assn.* The need for a connection between an exaction and a proposed development is established in *Ayres*. The dimensions of the connection are delineated in *Nollan* (rational nexus) and *Dolan* (rough proportionality), at least for dedications of land. *Ehrlich* extends the *Nollan/Dolan* tests to individually negotiated (ad hoc) monetary exactions, while legislatively imposed monetary exactions on a broad class of properties require a lesser degree of documentation to establish proportionality, as least under current California law.⁷⁴

Although the Fee Mitigation Act helped clarify what is required to impose impact fees these fees are still abused. Using California traffic impact fees we will show that many local governments have not taken into account the full effect of the economic difficulties posed. Many commentators consider traffic fees best example of successful impact fees (Rosenberg, 680; Callies et al., 15), but if even the best fees fail to live up to any Pigovian ideal, we might want to start questioning the desirability of development impact fees in general.

III. Economics of Traffic Impact Fees

⁷³ *Id.* SECTION 66020.

⁷⁴ Curtin and Talbert, *supra* note, at 326. See also 326 through 328 for a discussion of San Remo. It is under this reduced level of scrutiny that traffic impact fees may be viewed.

Developers make decisions based on their perceived costs and benefits. In each development they need to provide the efficient level and mix of services to maximize their profits. New development requires infrastructure, and to the extent that these services can be provided within a project, developers have the proper incentive to make an efficient allocation where the benefit of these services matches their cost. Once the cost exceeds the benefit, the developer will provide no more since any further services lower profits.⁷⁵

The catch is that new development may have effects that spill over into surrounding neighborhoods. In a zero transaction cost world, where existing residents owned the common pool resources in their neighborhoods a developer could bargain with the individuals and compensate them, again achieving the “efficient” level of services where marginal cost and marginal benefit are equal. In reality, common pool resources are not owned and the transaction costs of bargaining are positive, so the idea is that government should require developers to pay city or county government, an impact fee or exaction so that they compensate the public for the burden the new development places on existing services. Government imposes these exactions (as a dedication, construction of facilities or fee in-lieu) on the new development as a condition of approval to build.⁷⁶

According to Pigovian theory, if the exaction exactly matches the costs the new development imposes on the community and the government spends those fees to offset those costs, an economically efficient amount of new development will occur. Although finding the economically efficient level of taxes may be easy to do in a textbook, real

⁷⁵ See Robert B. Ekelund, Jr. and Robert D. Tollison, MICROECONOMICS at 68-72 (6th ed. 2000), at 10 for a description of marginal analysis and David N. Hyman, PUBLIC FINANCE: A CONTEMPORARY APPLICATION OF THEORY TO POLICY, (8th ed. 2005) at page 56 – 59 for a discussion of marginal costs, marginal benefits, and efficiency.

world political difficulties may result in governments setting fees at levels significantly above their marginal impact, and as the Department of Housing and Community Development (HCD)⁷⁷ argues, this clearly is the case in California.⁷⁸ Under these circumstances developers, landowners, and new buyers suffer.⁷⁹ Developers respond to high exactions by building less, and prices of the existing building stock increase. There is less developed property for new residents as well as new and existing businesses, causing rents to rise, businesses to close or relocate, and employment to fall.⁸⁰ Problems determining the proper level of fees arise in both the calculation and the implementation of exactions. Let us look at each problem in turn.

A. Basic economics of impact fees

Impact fees increase the price of housing and commercial development. Although legally development impact fees are not considered taxes, their economic effect is the same as a unit tax on new development. Taxes on new construction raise prices for consumers, lower revenue to developers, depress prices for undeveloped land, and decrease the quantity of new construction. Figure 1 illustrates the economic effect of an impact fee on new development. The effective supply curve shifts up by the level of the

⁷⁶ Kolo and Dicker, *supra* note, at 1.

⁷⁷ John Landis, Michael Larice, Deva Dawson, and Lan Deng, *Pay to Play: Residential Development Fees in California Cities and Counties*, 1999, THE INSTITUTE OF URBAN AND REGIONAL DEVELOPMENT FOR THE CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT (2001). This report provides the most comprehensive look at impact fees in California to date. While there have been many studies in this area previously, this report notes that they have not been comprehensive. They have suffered from a variety of weaknesses including only reviewing selected product types and/or selected fees, comparisons of disparate types of housing across jurisdictions, and focus on specific locals rather than the state as a whole. Using a detailed survey over a representative range (89 jurisdictions) of statewide data, this study overcomes much of the previous deficiencies to reach its conclusions.

⁷⁸ The HCD reports, “California development fees are extremely high. Single-family homebuilders in California in 1999 paid an average of \$24,325 per unit in residential development fees, based on the results of a sample of 89 cities and counties. Owners of new infill homes paid an average of \$20,327 per unit. Apartment developers paid an average of \$15,531 per new apartment unit.” *Id.*, at 1

⁷⁹ *Id.*.

⁸⁰ *Id.*, at 10.

impact fee and that decreases the quantity from Q_2 to Q_1 and increases price to consumers from P_2 to P_1 .

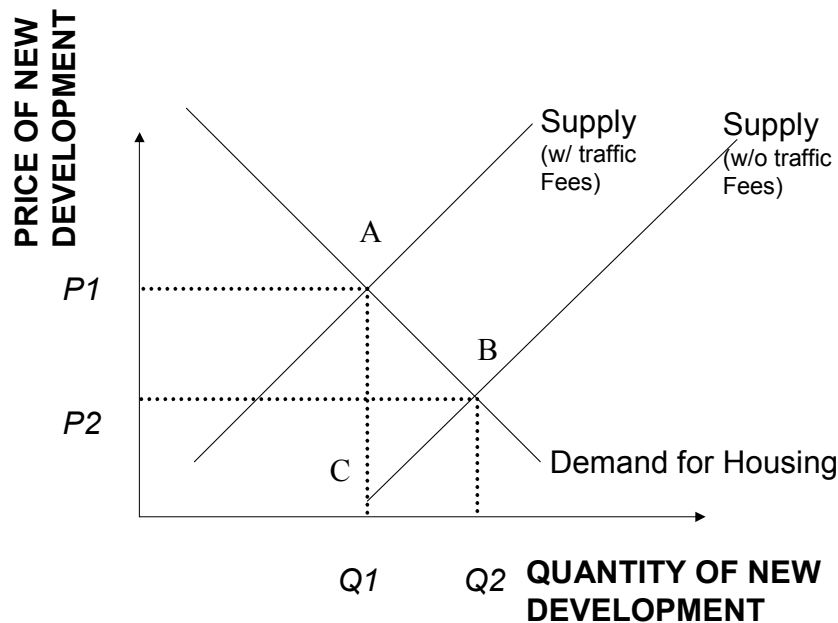


Figure 1 Increased Fees Make Development More Expensive

However, there is an additional effect whenever the fees are larger than the development's proportional impact on community infrastructure. When the fee is imposed the quantity is reduced from Q_2 to Q_1 while the price rises from P_2 to P_1 (see figure 1). The government collects revenue of P_1 minus P_2 times Q_1 . But, because the quantity produced has fallen from Q_2 to Q_1 , the economy absorbs an additional loss (excess burden) equal to one-half times the decrease in development ($Q_2 - Q_1$) times the fee ($P_1 - P_2$) and is represented by the triangle ABC in Figure 3.⁸¹ It is a net loss of efficiency in the community that cannot be regained even if the revenues collected equal

⁸¹ See Hyman, *supra* note, at 432 – 435, for an explanation of the impact of taxes on market prices and efficiency.

the total amount paid by developers.⁸² This loss could be even larger if there are significant costs in the collection or implementation of the fee.⁸³ In addition, the more sensitive the supply and demand for housing are to changes in price, the greater the deadweight loss will be.⁸⁴ The excess burden actually varies by the square of a unit impact fee, so that the loss of well-being increases four-fold when the impact fee is doubled.⁸⁵ Thus, high fees beyond a development's marginal impact can lead to very high efficiency losses.

Many jurisdictions mistakenly think that increases in fees always lead to increased revenue. However, as fees increase, the cost of developing increases. As already shown this increase in cost reduces the supply and increases the price of development.⁸⁶ It is possible, and in fact likely, that if fees are high enough they will discourage so much development that total revenue may actually fall. At the limits, if fees are zero, total revenue from fees is zero. If fees are so large as to deny the developer any income, no development takes place and total revenue is again zero. In between there is a point at which total revenue is maximized and the total revenue curve is shaped in an inverted U (Figure 2).⁸⁷

⁸² *Id.*, at 435.

⁸³ The efficiency of collection and implementation is, itself, problematic as noted by HCD. "Lack of knowledgeable staff was the single biggest problem identified when collecting fee information." Landis, *supra* note, at 4.

⁸⁴ Hyman, *supra* note, at 436.

⁸⁵ *Id.* See pages 465 - 471 for the algebraic derivation.

⁸⁶ See Ekelund and Tollison at 68-72, for an economic discussion of shifts in supply and demand.

⁸⁷ See Harvey Rosen, 2002, PUBLIC FINANCE, pp. 381-382 for an economic discussion of the Laffer Curve.

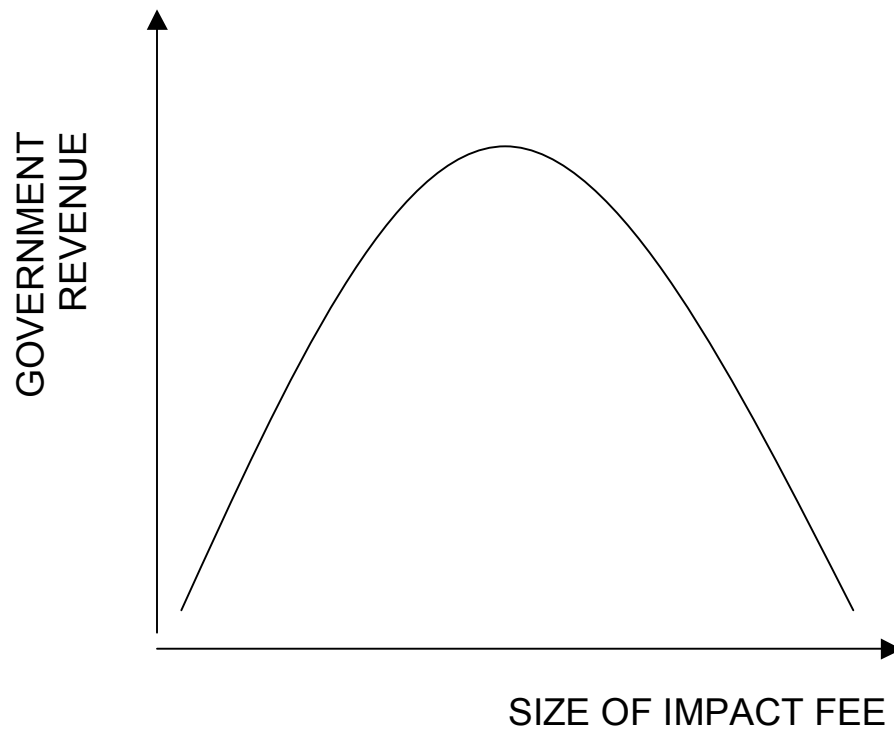


Figure 2: Laffer Curve for Impact Fees

The larger the impact fee, the more likely government has surpassed its maximum point on the total revenue curve.

In California the amount of impact fees is considerable. Among eighty-nine communities impact fees account for an average of ten percent of the median, new home price.⁸⁸ Dresch and Sheffrin noted that the fees imposed on single-family dwellings in Contra Costa County, California from 1992 through 1996 were significant ranging from \$20,000 to \$30,000 per dwelling and as much as 19% of the mean sales price.⁸⁹ California's Department of Housing and Community Development (HCD) found that single-family homebuyers paid an average of \$24,325 in development fees for tract homes and \$20,327 for in-fill homes, while apartment developers paid \$15,531 per new

⁸⁸ Landis, Larice, Dawson, and Deng, *supra* note, at 2.

⁸⁹ Dresch and Sheffrin, *supra* note, at 74.

apartment unit.⁹⁰ While the HCD reported fees varied significantly across the state (from \$4,000 to over \$60,000 per single-family dwelling), “Fees were highest relative to housing prices in the State’s fastest growing and most affordable communities.”⁹¹ These communities have relatively low land costs and high levels of development with economies of scale in construction leading to relatively low housing costs. But, they also have little long-term infrastructure planning and financing. They are most dependent on development fees for infrastructure.⁹² So, while construction costs are low, fees are high. Many charge the highest fees as a percentage of sale price (more than 15%)⁹³ and fast-growing, affordable communities were more likely to have recently increased their fees than slow-growth, expensive ones.⁹⁴ HCD noted that among their sample, traffic and transportation fees were the most frequently increased type of capital facility fees⁹⁵ making up the bulk of exactions (approximately 80%).⁹⁶

Housing affordability is affected by more than just the amount of the fee. Because fees are normally collected at the start of the project, builders must include fee interest (carrying costs) in their overhead until a house is sold, as well as during any additional processing time, in addition to the actual fee.⁹⁷ Mathur et al. found that in Washington state from 1991-2000 this increase averaged 1.66 times the fee and was larger for more expensive houses.⁹⁸ While noting that the reasons for the price effects need further study, they found their results consistent with Dresch and Sheffrin’s 1997 results for Contra

⁹⁰ Landis, Larice, Dawson, and Deng, *supra* note, at 103.

⁹¹ *Id.*, at 107.

⁹² *Id.*

⁹³ *Id.*, at 87.

⁹⁴ *Id.*, at 56.

⁹⁵ *Id.*, at 56.

⁹⁶ *Id.*, at 2.

⁹⁷ Mathur, Waddell, and Blanco, *supra* note, at 1311.

⁹⁸ *Id.*

Costa County, California of \$1.88 increase in housing price for \$1.00 impact fee increase.⁹⁹ Fees and carrying costs have a chilling effect on affordability. As pointed out by Robert Keenan of the Building Industry Association of Kings/Tulare Counties (one of the fastest growing areas in California) in responding to the mayor of Visalia's comment that fees do not seem to have a chilling effect on the housing industry, "Is it his assumption that because they're raising fees, we are selling more homes? The real chilling effect is that local buyers are being priced out of the market."¹⁰⁰ He noted that fees can reduce affordability quickly. Housing statistics showed that from the third quarter to the fourth quarter of 2004, Tulare County's affordability went from first in the state at 46.4% of people at the median being able to afford a home to only 40.1% when prices increased \$12,000.¹⁰¹ Quoting Keenan, "That's 6.3% of people making the median income who just got priced out of the market. Fees do have a chilling effect."¹⁰² As Figure 1 above illustrates, increasing fees on development leads to higher prices for consumers and smaller quantity of development. Although during periods of low demand fees and exactions can be passed backwards to landowners or shared between landowners and developers, in periods of high demand typifying the California market in recent years, these fees tend to be passed forward to homebuyers.¹⁰³ In the long run, high fees give developers an incentive to build more expensive homes, making fees a smaller percentage of total price since the fees are charged per dwelling unit rather than as

⁹⁹ Marla Dresch and Steven M. Sheffrin, *supra* note, at 75.

¹⁰⁰ Sheehan, *supra* note, at 1.

¹⁰¹ *Id.*, at 2. This discussion was in response to a new round of fee increases that combined to add over \$11,000 to the price of Visalia's "average" new home. One City Council member worried that he had only been on the council a short time, but has already considered two increases.

¹⁰² *Id.*, at 2.

¹⁰³ Landis, Larice, Dawson, and Deng, *supra* note, at 23.

percent of sales prices.¹⁰⁴ They also encourage developers to target higher income buyers who may be less sensitive to price increases. Ultimately, fewer buyers can qualify to purchase homes than otherwise because of excessive impact fees.¹⁰⁵ To reverse this trend fees must be lowered. HCD estimates that a fifty percent reduction in fees could result in a four to eight percent increase in affordability¹⁰⁶ based on the reduction in fee alone (assuming the reduced fee translated to a lower price on a dollar-for-dollar basis)¹⁰⁷ with potential increases in affordability in at least one area (Brentwood) of fourteen percent.¹⁰⁸ A similar reduction in fees could potentially increase apartment rent affordability by potential four to eight percent.¹⁰⁹

Excessive fees discourage efficient commercial development as well. A fee acts as a tax on new commercial development just as it does residential raising prices and reducing the amount of development that takes place. Imagine a business that is contemplating opening a large 100,000 square foot store in Salinas. Under a 2004 proposed fee increase, the store's owner would face a traffic impact fee of between \$2,000,000 and \$4,800,000 instead of the current fee of \$1,112,000¹¹⁰ and would have to weigh the benefit of being in Salinas against the cost-savings of a nearby lower tax community. Some companies would locate elsewhere leading to less construction and commercial space, a lower tax base, fewer jobs, and higher business costs. There would be a spatial shift of commercial

¹⁰⁴ *Id.*, at 3.

¹⁰⁵ Tim Sheehan, *Visalia Hikes Fees to Help Pay for Booming Growth*, FRESNO BEE, March 13, 2005.

¹⁰⁶ Landis, Larice, Dawson, and Deng, *supra* note, at 96.

¹⁰⁷ Note that this is an estimate since in areas and times of high demand developers may not reduce prices on a dollar-for-dollar basis and it may take time for these reductions to show up in housing prices. At the same time the reduction in fees may be reflected in additional reductions due to the reduction in the multiplier effect. See Landis, Larice, Dawson, and Deng, *supra* note, at pages 95-97 for a more thorough discussion.

¹⁰⁸ *Id.*, at 104.

¹⁰⁹ *Id.*, at 100.

businesses from high fee areas to low fee areas.¹¹¹ Where low-fee communities are located beyond the urban limits, the shift will also contribute to urban sprawl.¹¹²

B. Problems of calculating fees

Although an absence of impact fees would translate into more affordable housing, advocates of impact fees believe that housing imposes negative externalities and should be taxed. According to Pigovian theory, an exaction should be set at the level of the impact that new development imposes on existing infrastructure. For traffic impact within a development, establishing the proper facilities for ingress and egress is relatively simple.¹¹³ In fact, the simplest way to ensure the efficient cost/benefit nexus of infrastructure within a development is to have the builder finance it himself. However, the impact to surrounding neighborhoods is more problematic. The impact would need to be quantified by measuring traffic usage before and after development, holding other possible causalities constant, and calculating the burden of any increased usage imposed on other citizens.

But holding other causal factors constant is easier said than done. Whether increased traffic is solely from new development or from more intense use in surrounding developments is not always clear. Is the number of drivers in all households on average increasing and are choices of labor and leisure changing, affecting trip generation? Does the new development draw some traffic away from other developments that previously received it? Who is responsible for neighboring traffic into the development? Is the

¹¹⁰ Two alternative fee increase proposals were made and eventually voted down by the Salinas City Council that would have made that city one of the highest traffic fee cities in the state.

¹¹¹ Landis, Larice, Dawson, and Deng, *supra* note, at 9.

¹¹² *Id.*, at 9.

¹¹³ Landis, Larice, Dawson, and Deng, *supra* note, at 43.

development in-fill or outlying?¹¹⁴ Any one-size-fits-all or two-tiered system of traffic impact fees will not lead to a Pigovian solution because each individual project will have a differing marginal impact yet be charged the same fee. Thus under such systems some projects that would “pay for themselves” will be unnecessarily discouraged when the fee is higher than the project’s marginal impact while some developments with burdens in excess of the fee will be built.¹¹⁵

The California Department of Housing and Community Development (HCD) noted that these fees are not an efficient way of paying for capital infrastructure since that infrastructure is less expensive when built before it is needed.¹¹⁶ Exactions based on the next growth increment are necessarily higher than they would be if tied to a realistic and comprehensive general plan established prior to development. HCD finds that the link between traffic impact fees and long-term capital improvement is weak.¹¹⁷ According to HCD in California, “Development fees are higher than they should be...”¹¹⁸

In theory, the most efficient method of determining the impact of a development is to value its marginal contribution to infrastructure.¹¹⁹ Suppose an area is undeveloped, but has a general plan to accommodate 1,000 homes prepared by its jurisdiction. With a long-term capital improvement plan funded and in place, each new development could pay its incremental (marginal) share of the necessary improvements until the area was built out. However, in California where such funding is generally lacking and some development has already taken place, estimating marginal costs is complicated. Most fee

¹¹⁴ Infill may not impose unplanned spillover while outlying development may require substantial connecting roads.

¹¹⁵ *Id.*, at 22.

¹¹⁶ Landis, Larice, Dawson, and Deng, *supra* note, at 5.

¹¹⁷ *Id.*, at 2.

¹¹⁸ Landis, Larice, Dawson, and Deng, *supra* note, at 5.

¹¹⁹ *Id.*, at 16.

determination is made on an average cost basis.¹²⁰ Average cost pricing is problematic on two counts. First, it is difficult to separate the impact of new development from improving conditions of existing development. Second, if the average cost is calculated based on the total improvement cost divided by the current population rather than total developed population, new development pays a disproportionate share. While the California Supreme Court considers this practice illegal, HCD found, “it is implicit to some degree whenever fees are set on the basis of average cost.”¹²¹

The appropriate calculation of exactions is difficult. Government must be able to know the marginal impact that a development’s drivers will have on the roads. The impact of various projects is individual and changes over time so reasonable measurement is difficult at best. It puts government in a position akin to central planners attempting to measure marginal costs or marginal benefits of different actions in the absence of prices. Government can attempt to create a formula where it assumes that a certain type of development generates so many trips but depending on where those developments are located the marginal impact of these developments will differ. For example, the marginal impact of a development in a part of town where there are plenty of empty roads will be much less than the marginal impact of a development where there is congestion or lacking roads. To truly charge fees at the level of the marginal impact, the government would need to have a different fee for each resident of each development based on how much, when, and where they drive. This is not the current practice.

As a substitute to measuring marginal impact, many governments turn to average cost pricing. In many cases, the government decides how much it wants to spend on road

¹²⁰ *Id.*, at 102.

¹²¹ Landis, Larice, Dawson, and Deng, *supra* note, at 17.

improvements, it subtracts the dollar amount that can be financed through other means, and then divides the remaining costs between all proposed development.¹²² This method is mathematically much easier to calculate but extremely flawed. Why should developers in one part of town have to pay for the construction of a road in a separate part of town where their customers will not drive? Despite the legal requirement that fees have to be proportional with impact, in practice they are not.

C. Political problems of implementing fees

Individuals make choices based on the incentives they face.¹²³ Prior to the introduction of public choice theory,¹²⁴ modern democratic government was viewed as paternalistic and benevolent, making decisions to maximize social welfare.¹²⁵ Public choice exposes government actors to the scrutiny of economic analysis,¹²⁶ based on their rational self-interest just like private individuals.¹²⁷ To fully understand the implementation of government policies like exactions, one must view the incentives of those who implement them. These include politicians who propose them, current residents who vote for them, and bureaucrats who apply them.

Let us consider the incentives faced by a politician seeking to get elected. One potentially perverse incentive is that politicians must cater to current residents because future residents do not vote in current elections. Consequently, politicians may focus on

¹²² Powell and Stringham encountered the City of Salinas attempting to use this method with a proposed impact fee increase in 2004. See Peter Kasavan, *Traffic Impact Fee Boost Tempered a Bit*, CALIFORNIAN (Salinas, CA), April 20, 2004.

¹²³ Steven E. Landsburg, *THE ARMCHAIR ECONOMIST*, at 3(1993).

¹²⁴ As defined by the MIT DICTIONARY OF ECONOMICS, “an economic analysis of politics.”

¹²⁵ Brian Snowdon and Howard R. Vane, *MODERN MACROECONOMICS: ITS ORIGINS, DEVELOPMENT ,AND CURRENT STATE*,, at 30. A more thorough discussion follows on pages 518-521.

¹²⁶ For an introduction to public choice economics see William Mitchell and Randy Simmons, *BEYOND POLITICS*, (1994) and Gordon Tullock, Arthur Seldon, and Gordon Brady, *GOVERNMENT FAILURE*, (2002).

short-term policies that benefit current residents at the expense of future residents or those who never get a chance to move in. This can translate into incentives to engage in “fiscal zoning” to restrict residential development, and to discourage some, or even all, types of growth.¹²⁸ Implementing excessive exactions is one way to accomplish this. Politicians will often find it in their interest to discourage apartments and low cost starter homes¹²⁹ and, instead, encourage high-income housing that will enhance local property values. This is particularly true where politicians view development only in terms of present costs and not long-term benefits, such as increases in the tax base, sales tax, employment, and other secondary and tertiary benefits.¹³⁰ They may use fees for “fiscal zoning” to encourage commercial development and discourage housing in order to capture sales tax revenue and limit expenditures on additional public services.¹³¹ They may strategically set fees to either attract growth or divert it where there are common markets for development among adjacent communities.¹³² As noted above, the average cost method most commonly used for fee estimation requires new entrants to bear the cost of improving existing facilities.¹³³ All of these practices hurt affordability but are good politics because they benefit the current electorate at the expense of potential residents.¹³⁴

Current residents can benefit from high impact fees in several ways. First, they can limit newcomers to their community who may be perceived as service intensive (e.g. high

¹²⁷ See Ekelund and Tollison, *supra* note, at pages 457-479 for an extended description.

¹²⁸ Landis, Larice, Dawson, and Deng, *supra* note, at 9, 27.

¹²⁹ *Id.*, at 17.

¹³⁰ Kolo and Dicker, *supra* note, at 4.

¹³¹ Landis, Larice, Dawson, and Deng, *supra* note, at 27.

¹³² *Id.*, at 27.

¹³³ *Id.*, at 9.

density or low-cost housing) through exclusionary zoning. Second, they can have new development foot the bill for infrastructure upgrades that benefit primarily existing residents.¹³⁵ This applies particularly to traffic impact fees that represent a large portion of capital fees (the majority category of fees)¹³⁶ when based on average cost pricing,¹³⁷ and where new development usage is difficult to separate from more intensive use of existing improvements.¹³⁸ Third, while both of these policies will decrease housing affordability, voters who already own their home may not care. Existing homes are a close substitute for new homes, and as fees drive up the cost of new homes, existing home values increase(Figure 3).¹³⁹

¹³⁴ Of course owners of raw undeveloped land are also harmed but they are often not residents of the community where the land is owned and even if they are they only get one vote compared to the many votes of the owners of homes throughout the community.

¹³⁵ National Association of Home Builders, CONSUMER GUIDE TO UNDERSTANDING IMPACT FEES, , at 1 (2005).

¹³⁶ Landis, Larice, Dawson, and Deng, *supra* note, at 2.

¹³⁷ *Id.*, at 9.

¹³⁸ See Calculation Section above.

¹³⁹ Note that the supply curve of existing houses is fixed (vertical) in the short run by definition so that all of the fee is translated into higher prices.

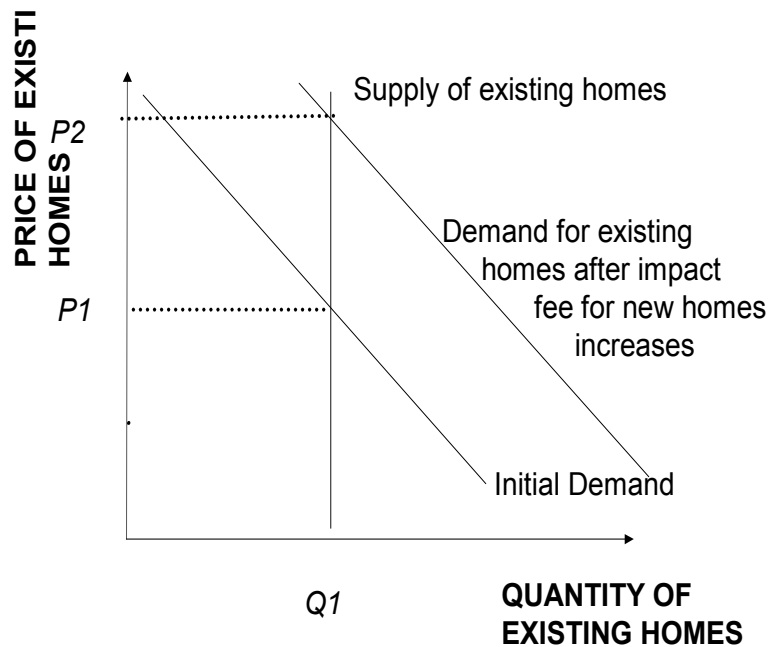


Figure 3 Increased Fee Makes Existing Homes More Expensive

Bureaucrats have incentives to support higher fees, as well. For example, as the local planning director becomes more important he might be able to demand a higher salary and benefit from having a larger planning staff, increasing the reach of his department, his influence, and his future job opportunities.¹⁴⁰ In addition, when bureaucrats have the authority to waive fees, they are in a position to extract resources from builders in other ways.

Thus, politicians, existing residents, and bureaucrats can find their incentives aligned to raise fees excessively, creating inefficient outcomes.¹⁴¹ The economic analysis of politics gives us theoretic reasons to believe local governments' impact fees are not set

¹⁴⁰ See Paul Wyckoff, *The Simple Analytics of Slack-Maximizing Bureaucracy*, PUBLIC CHOICE, at 35-47, Vol.67(1) (1990) for a detailed description of budget and slack-maximizing bureaucracies.

¹⁴¹ Landis, Larice, Dawson, and Deng, *supra* note, at 9.

based on some Pifovian model. We can look for additional evidence by examining the variation in fees among jurisdictions.

Variation in fees, in and of itself, is not flawed since new development may have different impacts in different communities. If fees are set according to the Pigovian criteria, cities with similar economic and demographic characteristics should have similar fee structures validated by comprehensive nexus studies. Fees should vary according to differences in jurisdiction population, growth, age, density, income, and development activity. However, if politics is driving fee structures in California cites, fees could vary greatly with no obvious relationship with the above characteristics. In fact fees do vary widely across California - total development fees vary from 2% to 20% of new housing prices that translates from \$11,176 to \$59,703 for single-family tract homes and from 7% to 17% for apartments in 1999.¹⁴² Capital facility fees, the major portion of which are traffic fees, make up 80% of housing fees and 86% of apartment fees.¹⁴³ Of all fees, traffic fees varied the most between jurisdictions,¹⁴⁴ and they were the most frequently increased capital facilities fees.¹⁴⁵ Figure 4 illustrates the level of traffic impact fee by Californian city. Is the actual marginal traffic impact of an additional house zero dollars in Santa Barbara and \$7,000 in Berkeley? It's possible but unlikely.

¹⁴² Landis, Larice, Dawson, and Deng, *supra* note, at 103-104.

¹⁴³ *Id.*, at 2.

¹⁴⁴ *Id.*, at 22.

¹⁴⁵ *Id.*, at 56.

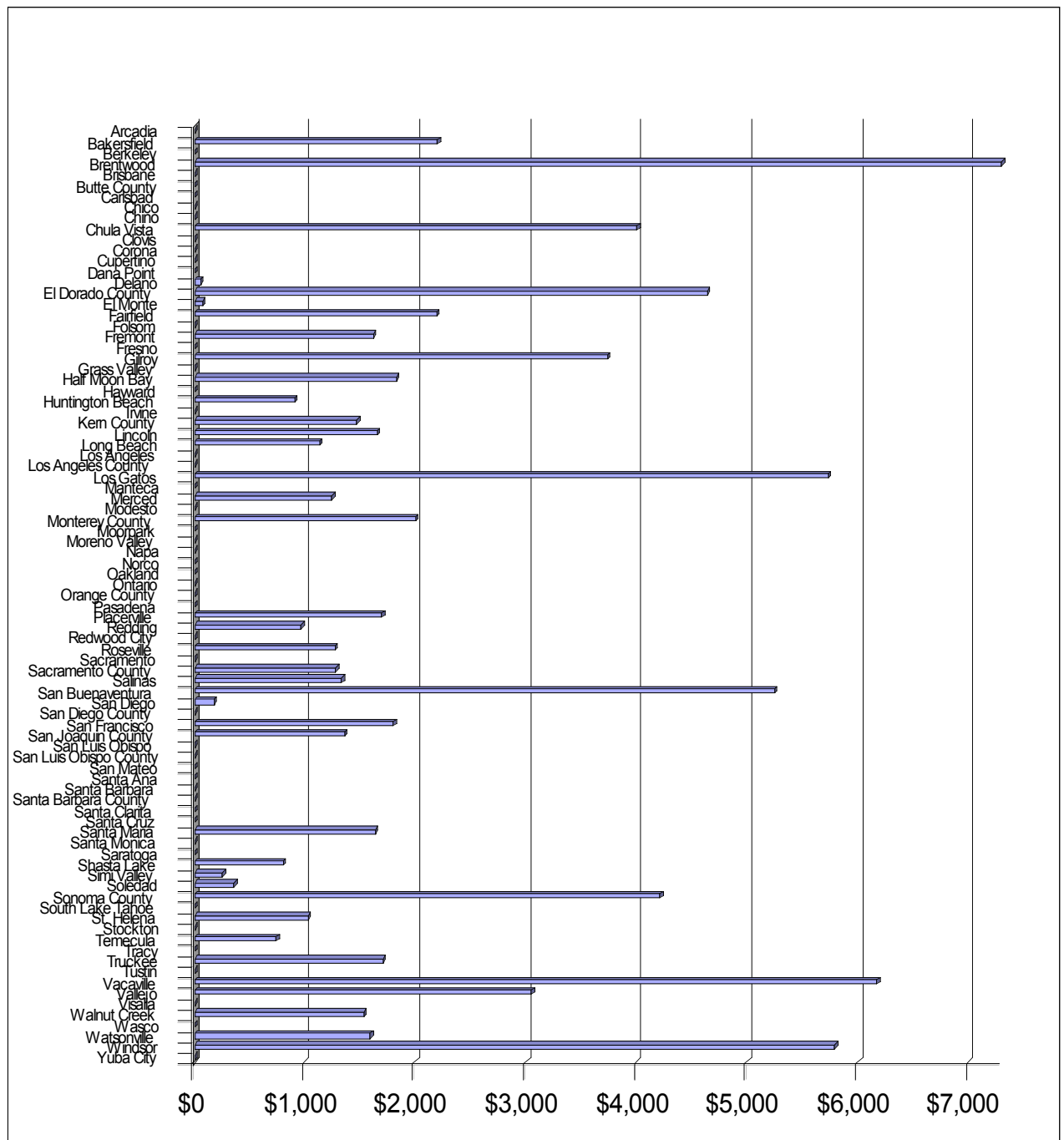


Figure 4 1999 Residential Traffic Impact Fees By California Jurisdiction¹⁴⁶

¹⁴⁶ Data from LANDIS, Larice, Dawson, and Deng, *supra* note, at Appendix B.

Because California courts have firmly upheld the nexus of development fees and infrastructure costs (albeit in a more distant sense for legislative enactments), fees should vary in a predictable way. The California Department of Housing and Community Development (HCD) states, “If the Fee Mitigation Act is working as intended – that is, if there truly is a nexus between development fees and capital facilities costs – then development fees should vary in ways both recognizable and explainable.”¹⁴⁷ But they do not.

HCD surveyed impact fees in 89 communities in California. They found some charged a multitude of fees while others charged none.¹⁴⁸ Some communities charged a consolidated fee based on a schedule while others simply lumped fees together without explanation leaving both staff and developers without a reliable way to estimate project fees.¹⁴⁹ This complicated the development process and made fee collection appear arbitrary.¹⁵⁰

HCD used regression models to try to determine what caused the variation in fees among jurisdictions. They controlled for type of jurisdiction (city or county), population, population change, housing supply ratio, city age, gross density, per capita net expenditure and median household income. They were only able to explain 48% of the variation in traffic fees between cities.¹⁵¹ Only three factors were significant and they were positive: city age, median household income, and housing supply ratio.¹⁵² They ran nine different regressions, one for each type of impact fee a city charged (i.e. planning

¹⁴⁷ *Id.*, at 59.

¹⁴⁸ *Id.*, at 62.

¹⁴⁹ *Id.*, at 62.

¹⁵⁰ *Id.*, at 7.

¹⁵¹ *Id.*, at 79.

¹⁵² *Id.*, at 80.

fees, traffic, school, etc.) and were able to explain as little as 4% of the variation in a fee to as much as 48% of the variation.¹⁵³ When all of the impact fees cities charged were added together their model was only able to explain 24% of the variation in fees between cities.¹⁵⁴

The regressions clearly show that these variables provided a poor explanation of fee variation.¹⁵⁵ Fees also varied inconsistently by region and, generally as much within regions as between them.¹⁵⁶ Fees did not substitute for public debt as might be expected if they cover capital infrastructure.¹⁵⁷ This large variation in fees unaccounted for by explanatory parameters is strong evidence that impact fees are set by politicians to benefit current residents and are not set to encourage economically efficient development as the law requires. If one believes that the fees are set proportional to impact, we must conclude that the marginal impact on traffic of additional residence is zero in Santa Monica, a few hundred dollars in San Diego, and more than \$10,000 in Brentwood.

The Fee Mitigation Act requires the reasonable connection between fees and actual impact.¹⁵⁸ Communities are supposed to commission studies establishing this nexus and up-date them at least every five years. They should include projections of population to be served, current and future service levels, determination of needed future facilities with cost estimates, proper cost apportionment between new and existing residents, procedures of notification of fees and protest.¹⁵⁹ Yet twenty of eighty-nine jurisdictions surveyed could *not produce even one* nexus study. Few nexus studies were

¹⁵³ *Id.*, at 79.

¹⁵⁴ *Id.*, at 79.

¹⁵⁵ *Id.*, at 78.

¹⁵⁶ *Id.*, at 103.

¹⁵⁷ *Id.*, at 86.

¹⁵⁸ The plans are often referred to as nexus studies and are certified by resolution or ordinance.

¹⁵⁹ *Id.*, at 50.

comprehensive and most were passed simply as city council findings. They were generally two to five years old and cities had few resources to up-date them. Seventeen had general studies, nine had specific traffic studies, and thirty had a nexus study for at least one category of fee.¹⁶⁰ Where nexus studies existed, they usually employed average cost pricing and were poorly linked to capital spending.¹⁶¹

Impact fees in California are not set according to comprehensive studies that match the marginal cost of development to the fee charged. The incentives of politicians, current residents, and local bureaucrats are aligned to impose high fees rather than any type of Pigovian fee. The fee setting process in California is ad hoc and political.¹⁶² When combined with the difficulties of calculating proper fees (if jurisdictions were so minded) and the inefficiencies of their collection, traffic impact fees are a flawed method of providing infrastructure. In the following section we will discuss some alternative methods of infrastructure provision that could avoid these problems.

IV. Alternatives to Impact Fees

Fees are far from some Pigovian ideal. Calculating each individual project's specific impact is easier said than done and using any single or multi-tier average fee will discourage some developments that would be economically efficient. But what about the fact that development might impact a neighbor's subjective well being in both positive and negative ways? We have seen that impact fees are unlikely to successfully internalize externalities, but are these extremely problematic impact fees the only option available? Luckily, alternatives to impact fees exist. Simply changing the way roads are provided would allow developers and others to internalize these costs. If all costs could be

¹⁶⁰ *Id.*, at 52-54.

¹⁶¹ *Id.*, at 51.

internalized through road provision reforms there would be no spillover costs and, hence, no need for inefficient impact fees. Let us consider some market solutions.

A. Traffic Alternatives

New development traffic costs spillover onto existing residents and city budgets in three ways. Most obviously, new outlying development requires new local roads to be constructed within the development and roads to connect it to the existing traffic grid. When cities are responsible for constructing and/or maintaining these roads existing taxpayers bear some of the burden of new development if there are no impact fees. New development also brings in more residents whose travel crowds major highways and thoroughfares. Often additional highway lanes or new entrances are needed to offset this burden. Taxpayers again bear the cost of construction. Finally, the community's increased population also burdens the existing local traffic grid. This imposes costs on local residents both through increased delays and gridlock, and through government expenditures to finance road widening and other traffic control measures. But is the problem inherent to the market or is the problem due to the way government provides these common pool resources?¹⁶³ If government simply turned over the provision of roads to the private sector (as proposed by the numerous authors in Roth [2006]) then the problem of externalities would not arise. Let us consider some potential solutions that could arise in the market.¹⁶⁴

¹⁶² *Id.*, at 49.

¹⁶³ See Bruce Benson (1994) "Are Public Goods Really Common Pools" for a discussion of this.

¹⁶⁴ See Gabriel Roth, *ROADS IN A MARKET ECONOMY*, (1996) and *STREET SMART*. (ed. 2006)) New Brunswick: NJ. Independent Institute and Transaction Publishers for excellent discussions on alternative ways to construct, finance, and operate roads.

Local and Connecting Roads

Local roads within a new development and those roads needed to connect the development to the existing traffic grid are the easiest to envision being provided without resorting to impact fees. If local governments do not finance and construct these roads within a development existing residents do not have to foot the bill. The potential builder wishing to construct a new development would have to bear the cost of installing the roads himself in order to complete his project. This is already common with many developments in California and elsewhere in the United States.¹⁶⁵ Because a developer can only sell homes if they are accessible to their residents, the developer has an incentive to install any necessary roads. Since the developer benefits from the roads and bears the costs if they are not built, developers will be naturally led to construct only those projects where the cost of development is less than the expected consumer value once the project is complete. All cost and benefits of the local and connecting roads are borne by the individual developer, so that any local costs are internalized. And perhaps most importantly, this would bring the design and placement of the roads into the realm of economic calculation, which as Ludwig von Mises has discussed, is so important.¹⁶⁶ With private provision, the developer will want to design the road system in a way that maximizes the final value of the new development. With local government provision, in contrast, the profit and loss system is absent, so governments have little information or incentive to maximize the value of a specific tract.

In addition to construction costs, road maintenance could also be separated so no costs spill over on the existing community. After the development is completed the

¹⁶⁵ See Bruce Benson (2006) at 39.

beneficiaries of the local and connecting roads will be the residents of the development. Many neighborhoods already have homeowners (or street owners) associations to govern collecting fees and paying for maintenance of the streets¹⁶⁷ (See **Chap X** for a discussion of neighborhood associations). Essentially, purchasing a home can be bundled with purchasing a fractional share of its neighborhood and connecting roads. When structured this way existing local residents would bear neither the immediate nor future infrastructure costs of servicing the new development. All costs of local and connecting roads would be internalized to the new development so there would be no need for impact fees to finance them.

There is already much evidence that development in the U.S. can provide its own local roads as private or club goods.¹⁶⁸ Over 8,000,000 US residents lived in gated communities in 1995¹⁶⁹ and this is only a fraction of the total number of U.S. citizens living on privately provided roads.¹⁷⁰ In short, there is little theoretic or empirical justification for governments to fund the construction and maintenance of local and connecting roads in new development through the use of traffic impact fees.

Highways and Thoroughfares

Highways and thoroughfares cannot be efficiently financed by only new development (if developments are on a small scale) because existing residents also benefit from the construction or expansion. If new development bore the full burden of

¹⁶⁶ See Ludwig Von Mises, *HUMAN ACTION: A TREATISE ON ECONOMICS*, (Scholar's Edition, 1998), at 201 – 232 for a thorough discussion of the of economic calculation as the guide for appropriate action.

¹⁶⁷ See [Chapter 10 for a discussion of neighborhood associations.](#)

¹⁶⁸ See Fred Foldvary, *PUBLIC GOODS AND PRIVATE COMMUNITIES*, (1994). For the economic theory of club goods see a thorough discussion of the of economic calculation as the guide for appropriate action.

¹⁶⁸ See James Buchanan, An Economic Theory of Clubs, *Economica*, 32 (February 1965) at 1-14.

¹⁶⁹ Bruce Benson, *TO SERVE AND PROTECT*, at 93 (1995).

¹⁷⁰ Bruce Benson, *Are Roads Public Goods, Club Goods Private Goods or Common Pools?*, Working Paper, Florida State University, at 39 (2006).

constructing or expanding these roads, development would be inefficiently discouraged. To have efficient highway development those who benefit from the highway, i.e. drive on it, must be the ones who pay for it. Currently most highways are funded through tax dollars not through direct usage charges.¹⁷¹ Thus highways are often overcrowded and underprovided. New development only compounds this problem by adding more drivers to the highways. Because of the difficulties in calculating and implementing impact fees on new development, whenever highways can be provided by the private sector economic efficiency will be enhanced.

Private construction and maintenance of highways is less common today but many successful modern and historical examples of private provision exist. In early America turnpikes were often privately constructed and financed.¹⁷² Between 1794 and 1840 3,750 miles of New England private turnpikes were built and operated by 238 turnpike groups.¹⁷³ New York had over 4,000 miles of private turnpikes by 1821.¹⁷⁴ Similarly, Pennsylvania had about 2,400 miles in 1832 while Maryland had 300 miles of private roads in 1830 and New Jersey companies provided about 550 miles of private turnpikes in 1821.¹⁷⁵ Overall, relative to the size of the economy colonial turnpikes in the early U.S. were larger than the post WWII interstate system.¹⁷⁶

SR91 in Southern California is the most well known current U.S. example of a privately constructed and operated highway. In 1995 \$134 million dollars of private

¹⁷¹ Gasoline taxes are an inefficient method of financing roads because they do not distinguish who drives on which roads and at what times. Different roads have different demands and levels of congestion and to be operated efficiently should have different prices to reflect that. Gasoline taxes fail to do this.

¹⁷² See Daniel Klein, *The Voluntary Provision of Public Goods? The Turnpike Companies of Early America*, in David Beito, Peter Gordon, and Alexander Tabarrok (Ed.), *THE VOLUNTARY CITY*, at 76-101 (2002) for a discussion of these companies and what mechanisms allowed them to provide the roads.

¹⁷³ *Id.*, at 84.

¹⁷⁴ *Id.*, at 84.

¹⁷⁵ *Id.*, at 84.

capital was spent to construct a four-lane private toll highway adjacent to an existing non-toll government highway in Orange County just east of Anaheim.¹⁷⁷ The road is approximately 10 miles long and charges a fixed toll that varies between \$1.00 and \$5.50 depending on the time of day.¹⁷⁸ The road generates annual revenue of approximately \$29 million and has turned a profit every year since 1998.¹⁷⁹ In addition to shorter commute times drivers report that the private toll lanes are safer than the adjacent freeway.¹⁸⁰ The toll way also manages to avoid the cost and delay of tollbooths by using 100 percent electronic toll monitoring that allows drivers to continuously maintain highway speed.

Orange County has several highways that, although not completely private, follow the SR91 model comprising 51 miles of congestion relieving toll roads operated by TCA, a public/private transportation partnership.¹⁸¹ Chicago recently joined in the move to privatization when it leased the Chicago Skyway to a private Spanish/Australian investor group for 99 years for \$1.83 billion.¹⁸² Growing interest in toll roads spurred the current Administration to propose a new \$100 million “Open Roads Financing Pilot Program” to explore the expanded use of tolls.¹⁸³

Privatization would provide another advantage in allowing government to reduce their borrowing needs or use their scarce revenue on in other ways. Dana R. Levenson, City of Chicago Chief Financial Officer is quoted, “ This transaction, which is the first of

¹⁷⁶ Gerry Gunderson, *Privatization and the 19th-Centruy Turnpike*. CATO JOURNAL 9(1) at 192 (1989).

¹⁷⁷ Edward Sulliv, *HOT Lanes in Southern California*, in Roth (2006), *supra* note.

¹⁷⁸ *Id.* at 191.

¹⁷⁹ *Id.* at 197.

¹⁸⁰ *Id.* at 209.

¹⁸¹ Orange County’s Toll Roads, *available at* http://www.thetollroads.com/home/about_history.htm

¹⁸² Chicago Skyway handed over to Cintr-Macquarie after wiring \$1830M, TollRoadnews, *available at* <http://www.tollroadnews.com/cgi-bin/a.cgi>, Jan. 24, 2005.

its kind in the nation, fulfills Mayor (Richard) Daley's continued commitment to pursue innovative financing techniques, and has provided Chicago taxpayers with an unprecedented single up-front payment of \$1.83 billion that we will use to invest in our people and protect Chicago's taxpayers both today and in the future."¹⁸⁴ Nevada is currently investigating toll roads to help ease a \$3.8 billion shortfall in Nevada's highway budget between now and 2015.¹⁸⁵ This solution is becoming increasingly necessary as gas tax revenues shrink with more fuel-efficient vehicles at the same time the aging highway system requires more maintenance.¹⁸⁶ Indiana and New Jersey are currently studying the privatization of state owned facilities.¹⁸⁷

Toll roads also offer an additional potential advantage: congestion pricing. Many businesses already use congestion pricing including movie theaters that charge a low price on a midweek afternoon when the additional cost of filling an empty seat is close to zero and a higher price on weekend evenings when demand is high and the opportunity cost of the seat is driven up by the number of people willing to fill it.¹⁸⁸ Traffic congestion pricing is similar. While the marginal cost of traffic impacts from development is difficult to measure, the marginal cost of congestion is simple using existing road sensor technology and FasTrac electronic tolling. SR91 in Orange County uses a variable hour pricing system with price fluctuations tied to historical traffic conditions. Many other countries are experimenting with similar pricing schemes ranging from simple downtown daily driving fees practiced in London and Singapore to area,

¹⁸³ David Bauer, Editor, *Washington Update*, AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION, Feb. 13, 2006, No. 06-02.

¹⁸⁴ Chicago Skyway, *supra* note, at 1.

¹⁸⁵ Brendan Riley, *Nevada Task Force Eyes Toll Roads to Resolve Shortfall*, CONSTRUCTION EQUIPMENT GUIDE, Feb. 4, 2006, Vol.2, No.3.

¹⁸⁶ Orange County, *supra* note, at 4.

¹⁸⁷ *Id.*

facility, or distance-based programs in Norway, Hong Kong, the Netherlands, Italy, and France to San Diego that uses real-time congestion data to change tolls up to every six minutes with electronic notification to drivers.¹⁸⁹ Although the argument has been made that tolling unfairly disadvantages the poor, a study of Orange's SR91 showed that the toll road was not used entirely by the wealthy. "The ability to save time and reduce uncertainty confers substantial benefits to all drivers, including service professionals who can make more service calls and parents of any income group rushing to avoid charges for child care."¹⁹⁰ Not only does congestion pricing reduce demand at peak travel periods, where it generates profits, it provides the incentive to build more roads, further lowering the costs of congestion. Private tolling provides both a demand and supply solution. It is a better method of financing and operating new highways than charging new development impact fees.

Existing Local Traffic Grid

The inefficiencies of development impact fees would shrink significantly if new developments had to pay for their own local and connecting roads and highways were privately provided and financed. The only traffic impact that would remain is increased congestion on existing local roads. Here, too, each development will have a different marginal impact so fees are not going to provide the Pigovian solution, though the total "economic inefficiency" would be smaller than when fees are used to cover all types of road construction. But even here private alternatives could eliminate the need for impact fees.

¹⁸⁸ Flamm and Rosston, *supra* note, at 2.

¹⁸⁹ *Id.*, at 3.

¹⁹⁰ *Id.*

One could imagine numerous different ways of privatizing existing roads but let us consider one. Existing local roads could simply be turned over to local residents who live on them. New street owners associations could be formed to establish rules, limit access, and to finance their maintenance.¹⁹¹ Streets with many commercial businesses would likely find it advantages to encourage usage so that the businesses could attract customers (think of free streets around shopping malls) while residential streets might try to limit access to only residents and guests (think of the gated community with a single entrance). The individual decisions could be left up to each association. Under this situation, existing local residents would be able to limit the impact of new development to minimize spillover costs.

Reforming local ownership by deeding back existing streets to citizens is the most radical change necessary to eliminate the traffic impact of new development. However, it is not without precedent in the U.S. In the 1970s and 1980s the city of St. Louis deeded back a number of its existing streets to current residents to govern through street owners associations. The process began in 1970 when the Westminster Place area of St. Louis petitioned the city to deed the streets back to the residents because they were unhappy with the approximately 6,000 cars a day that were using the area as a short cut around major boulevards with traffic lights.¹⁹² The street owners association was given responsibility for street, sewer, and streetlight maintenance, garbage pickup, and the right to limit through traffic and install speed bumps.¹⁹³ The success of private street

¹⁹¹ Although charging tolls is a possibility, the transaction costs of this are likely too high at present. In the future the use of electronic tolls which charge drivers via satellite or overhead monitor may overcome transaction costs allowing these roads to operate more like modern toll financed private highways.

¹⁹² Gage, T. J. (1981) "Getting Street-Wise in St. Louis." *Reason*. 13: 18-20.

¹⁹³ See Bruce Benson, *Do Holdout Problems Make Compulsory Right-of-Way Purchase and Public Provision of Roads Necessary?* in Roth (2006), *supra* note.

associations let to their spread in St. Louis. The city had over 427 private street associations by 1982¹⁹⁴ and in two municipalities more than 50 percent of the street mileage was privately provided.¹⁹⁵ Although the privatization of the existing street grid is more complicated than developers financing their own local and connecting roads, and more complicated than privatizing highways, the St. Louis case shows that it is an option.

If communities: (1) simply had developers build their own local and connecting roads, (2) used toll roads to privatize highways and thoroughfares, and (3) deeded back the existing traffic grid to local residents, then local development no longer creates any spillover costs on local communities. The alleged need for traffic impact fees would no longer exist.

B. Privatization of Other Impacts

In addition to traffic impacts, government also often charges development impact fees for water provision, sewers, storm systems, parks, schools, refuse collection and police and fire services. These goods are often considered public goods because their provision has spillover effects on the community. But attempting to charge developers the marginal impact that their developments cost the community faces the same calculation problems as traffic impact fees. Yet an important alternative to government exactions for these impacts exists. Here too, advocates of impact fees usually overlook the simplest way of eliminating this problem: private provision.

A large literature in economics demonstrates that many local “public goods” traditionally associated with local governments can be provided through the market.¹⁹⁶

¹⁹⁴ Roger B. Parks and Ronald J. Oakerson, METROPOLITAN ORGANIZATION: THE ST. LOUIS CASE (1988).

¹⁹⁵ Foldvary, *supra* note, at 191.

¹⁹⁶ See the following: Spencer MacCallum, THE ART OF COMMUNITY, (1970); Spencer MacCallum, *The Quickening of Social Evolution: Perspectives on Proprietary (Entrepreneurial) Communities* in

Why would private enterprise have an incentive to provide positive public goods or minimize negative externalities? Private parties will do so if they can internalize those benefits. Harold Demsetz described how this can be done:

The enclosing of land into a single ownership entity which often undertakes to provide services usually provided by the government from tax revenue, such as streets, sidewalks, refuse collection, and even police protection, allows the owner to exclude those who refuse to pay rentals which cover the cost of these services.¹⁹⁷

Market arrangements can take many forms from contractual homeowners associations with multiple parties to multi-tenant income properties with a single owner.¹⁹⁸

Consider a proprietary community such as Disney World or Disney's privately planned city Celebration. These communities are essentially private cities that internalize the production of local public goods.¹⁹⁹ Disney provides private security, sanitation, commercial, recreational, and residential goods to residents and visitors over a 45 square mile area.²⁰⁰

One important difference between private entities such as Disney and public government is that private entities are motivated and disciplined by the profit mechanism. An advantage of the profit motive is that it aligns the incentives of proprietors with the incentives of their customers, because the proprietors can only make money if their customers are satisfied.

INDEPENDENT REVIEW, 2, at 287-302 (1997); Spencer MacCallum, *The Case for Land Lease Versus Subdivision*, in Beito, Gordon, and Tabarrok, *supra* note, at 371-400 (2002); Fred Foldvary, *supra* note; Frederic Deng, Peter Gordon, and Harry Richardson, *Private Communities, Market Institutions, and Planning*, (University of Southern California Working Paper 2002); Tyler Cowen, *THE THEORY OF MARKET FAILURE*, (1988); and Tyler Cowen and Eric Crampton (eds.), *MARKET FAILURE OR SUCCESS: THE NEW DEBATE*, (2002).

¹⁹⁷ Demsetz, H., *The Exchange and Enforcement of Property Rights*, JOURNAL OF LAW AND ECONOMICS 7: 293-306 (1964).

¹⁹⁸ Spencer MacCallum in Beito, Gordon, and Tabarrok (2002), *supra* note.

¹⁹⁹ Beito, Gordon, and Tabarrok (2002), *supra* note.

²⁰⁰ See Foldvary, *supra* note, at 114-133 for a discussion of all of the community goods Disney provides.

Disney, for example, has an incentive to figure out and provide the optimal amount of local public goods because they want to maximize the value of their land. If they have refuse, crime, or sewer problems within their bounds, they will suffer losses. The incentives for local governments, on the other hand, are much less clear given the absence of prices, profits and losses.²⁰¹ If government officials make bad decisions they may need to worry about being fired or being voted out of office, but the feedback mechanism is much less direct.²⁰²

How do private parties get compensated for providing local public goods? Even though there might not be explicit prices for goods like roads, bundling them with goods that must be purchased such as housing enables the private party to recoup his or her investment when the price of the private good increases. A home with a road next to it, of course, is worth more than a home with no road at all, so if providing a road makes sense then the developer will have an incentive to provide it. As economist Tyler Cowen points out:

Shopping malls and condominiums are other examples of the use of tying arrangements for public goods supply. In the case of shopping malls, public goods such as streets and security are paid for through the provision of private goods such as shoes, clothing, and books.²⁰³

They essentially tie the provision of public goods that have no price with the provision of private goods that have an explicit price, and as long as there is a competitive market in housing there will be an efficient provision of housing and the accompanying public goods. The advantages of such arrangements are further explored in the literature on

²⁰¹ See Ludwig Von Mises, *supra* note, at Chapter XVI and Friederich A. Hayek, *INDIVIDUALISM AND ECONOMIC ORDER*, (1992) for well-developed discussions of prices. See also Joseph A. Schumpeter, *CAPITALISM, SOCIALISM, AND DEMOCRACY*, at 81-86 (3rd Ed., 1950) for an explanation of creative destruction from profit and losses.

²⁰² Mitchell and Simmons, *supra* note.

²⁰³ Tyler Cowen (1988), *supra* note, at 10.

private communities by authors including MacCallum, Foldvary, Deng, Gordon, and Richardson.²⁰⁴

Some might wonder whether privately produced public goods would work on a large scale. Although great weight is often attached to the importance of spillover effects for local government services,²⁰⁵ Cowen argues that “Most real-world public goods, however, are local,” rather than, “national or global, which implies there is only one community and that it has a fixed membership.”²⁰⁶ Tom Means and Stephen Mehay test such a hypothesis econometrically and conclude that, “most local government services do not exhibit a significant degree of publicness.”²⁰⁷ Given that the externalities or spillover or neighborhood effects of these public goods are very local, it is not surprising to see so many private communities providing them on their own. Foldvary, and Beito, Gordon, and Tabarrok provide the most comprehensive discussions of how private communities can provide local public goods.²⁰⁸ Places like Lake Havasu City, Arizona and Irvine Ranch, California have been entirely created with private funds.²⁰⁹ As of 1998 there were about 205,000 neighborhood associations in the United States housing nearly forty-two million residents providing a multitude of services including garbage collection, street maintenance, snow removal, gardening, and maintenance of common areas and recreational facilities.²¹⁰

²⁰⁴ Spencer MacCallum (1970, 1997, 2002), Foldvary (1994), and Deng, Gordon, and Richardson, all *supra* note.

²⁰⁵ John H.Y. Edwards (1990), *Congestion Function Specification and the Publicness of Local Goods*, JOURNAL OF URBAN ECONOMICS, 80-96, (January 1990).

²⁰⁶ Tyler Cowen, *supra* note, at 14.

²⁰⁷ Tom S. Means and Stephan L. Mehay, Estimating the Publicness of Local Government Services: Alternative Congestion Function Specifications, SOUTHERN ECONOMIC JOURNAL, v.61, n.2, 614-627, and at 626 (1995).

²⁰⁸ Foldvary, *supra* note and Beito, Gordon, and Tabarrok, *supra* note.

²⁰⁹ Beito, Gordon, and Tabarrok, *supra* note, at 270.

²¹⁰ *Id.*, at 310-311,

These private associations are not all small condominium associations or entertainment complexes such as Disney World. Some are quite large permanent residential and commercial areas that provide a wide range of public goods for which many politically governed jurisdictions charge impact fees. Ford's Colony near Williamsburg, Virginia is a private 2,500 acre community of single family houses, town homes, and condominiums that owns all of its own streets and operates a golf course.²¹¹ Sea Ranch, California, is a private community with more than 10,000 residents.²¹² It provides community goods such as roads, sewers, electricity, fire protection, security patrols, hiking trails, golf, tennis, swimming and a private airstrip.²¹³ Although some cities charge impact fees for parks, Arne notes, "Sea Ranch is a park; its commissioners merely put the roads and trails in to let people enjoy nature's wonders. These entrepreneur-mandated improvements, coupled with extensive rules of preservations, took the place of city park commissions and charitable donors."²¹⁴ Reston, Virginia is a mixed use privately planned and constructed community where more than 40,000 people reside and 22,000 people work and it remains unincorporated in Fairfax County despite its size.²¹⁵ It has a mix of single family detached homes, apartments, commercial and light-industrial businesses as well as schools, lakes, trails, and golf courses.²¹⁶ Reston has 1045 acres of open space that includes woodland, trails, a park with horse and jogging trails, four lakes, ponds, gardens, two golf courses, sports fields and tennis courts, child

²¹¹ Foldvary, *Supra note*, at 188.

²¹² Robert Arne, 2002, "Entrepreneurial City Planning" in Betio, Gordon, and Tabarrok, *supra note*. p. 103.

²¹³ *Id.*

²¹⁴ *Id.* at 118.

²¹⁵ Donald Boudreaux and Randal Holcombe, 2002, "Contractual Governments in Theory and Practice." In Betio, Gordon, and Tabarrok, *supra note*, at 297.

²¹⁶ *Id.*

playgrounds, 16 swimming pools and lakes for fishing and boating.²¹⁷ Overall, there are 20 acres of recreational facilities and parks per 1,000 residents of Reston.²¹⁸ This exceeds the recommended 9.7 acres established by the National Recreation Association.²¹⁹

The justification for impact fees is that development entails costs that spill over onto existing residents. Yet these costs exist only because of the way roads, sewers, refuse collection, etc. are currently financed with tax dollars. If, however, all goods were instead privately provided, impact fees would not be needed in the first place. Although impact fees are charged for numerous “public goods,” if one looks around one can find that nearly all of these services are provided through the market in various places.²²⁰ Through private provision the calculation and implementation problems are avoided. The use of government impact fees to pay for provision of “public” goods and services is not as necessary as many people presume and we would do well to minimize the inefficiencies they create by privatizing as many of these goods as possible.

V. Conclusion

Development fees are not as close to the ideal corrective device as many people assume. One could imagine impact fees being set according to the marginal impact development has on a community, but despite the legal requirement in places like

²¹⁷ Foldvary, *supra note*, at 179.

²¹⁸ *Id.* at 180.

²¹⁹ *Id.*

²²⁰ Many historic examples of privately provided community goods in industrial areas can be found in Arne, *supra note*. Examples of private schooling that educated 90 percent of the population can be found in James Tooley, 2002, “Education in the Voluntary City.” Beito, Gordon, and Tabarrok, *supra note*. Private provision of police can be found in Stephen Davies, 2002, “The Private Provision of Police during the Eighteenth and Nineteenth Centuries” in Beito, Gordon, and Tabarrok, *supra note*.

California that impact fees are supposed to approximate marginal impact, in practice they do not. Each individual development has a different impact. For there to be a true nexus between a fee and development's marginal impact, each development would have to be individually evaluated for a unique charge. Governments are unable to calculate specific, or even average marginal impacts of developments, so they assess fees in numerous questionable ways. Development impact fees vary greatly between jurisdictions with many imposing fees that are difficult to justify. Many governments simply come up with a wish list of public projects and then they try to get them financed by developers. In these cases, the impact fees are nothing more than a general tax on development. Eliminating impact fees will encourage development and make real estate more affordable.

The elimination of development impact fees need not burden existing residents with any spill over costs of new development. New roads and other 'public goods' currently financed by impact fees have been privately provided. Reforms should move these goods back to the private sector while simultaneously eliminating impact fees so that a more efficient level, mix, and dispersion of development can occur.